Section 6 Asset Class – Parking Payment Devices:

The Parking Payment Devices asset class includes:

- ✓ Pay Stations
- ✓ Parking Meters

The parking payment devices collect fees for parking on public property or ROW. The City of Seattle uses on-street payment devices to:

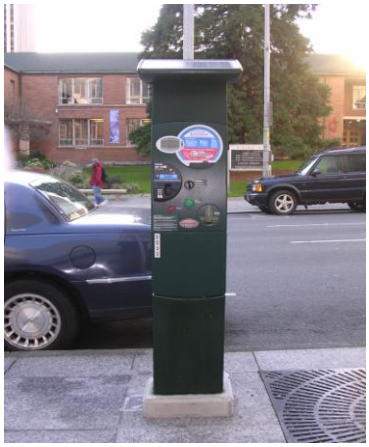
- ✓ Promote parking turnover
- ✓ Manage a limited amount of on-street spaces primarily in commercial areas where demand exceeds supply
- ✓ Provide short-term parking spaces for shopping or personal errands
- ✓ Improve traffic circulation and economic viability of commercial areas by maximizing the number of patron visits by car

In 2009, payment parking devices contributed $25.3 million in annual revenues to the City at an operating cost of approximately $5.2 million.

Parking payment devices are managed by the Parking Operations group in the Traffic Management Division.

Pay Stations:

Pay stations are electronic payment devices installed on sidewalks adjacent to on-street parking. A pay station controls more than one parking space. Pay stations accept payment by both credit card (Visa, MasterCard and American Express) and coin. Features of this parking payment device include a credit card reader, a receipt printer, and a solar panel.



Pay Station

The pay stations are connected to an electronic network owned by the vendor, Parkeon, communicating directly with the Parking Maintenance Shop which monitors performance of the pay stations on a real-time basis. Help is provided to customers via telephone during pay station hours of operation (8 AM – 6 PM, Monday through Saturday), and, in the event a credit card gets lodged in one of the pay stations, a technician in the field will respond immediately.

SDOT began installing pay stations in 2004 to replace single-space parking meters.

Current Inventory and Anticipated Annual Growth:

The inventory of pay stations is maintained in the Hansen system.

There are 2,171 pay stations on the streets and in the Parking Maintenance Shops inventory as of December 31, 2009. In the 2010 budget, the Council approved purchase and installation of an additional 87 pay station to replace most remaining singe-space meters, and 69 pay stations for installation in Capitol Hill and First Hill. SDOT examines on-street parking conditions in various neighborhoods and business districts, which may or may not result in paid parking in each area. For planning purposes, SDOT currently estimates installation of approximately 50 new pay stations per year after 2010.

As of the end of 2009, the estimated replacement value of the pay station inventory is $25,409,000 in 2010 dollars

Condition Ratings:

The pay station comes with a 5-year warranty. Since these are relatively new assets and almost all are within the warranty period, all use current payment technologies and continue to be supported by the vendor, all are considered to be in good condition.

Useful Life and Life Cycle Costs:

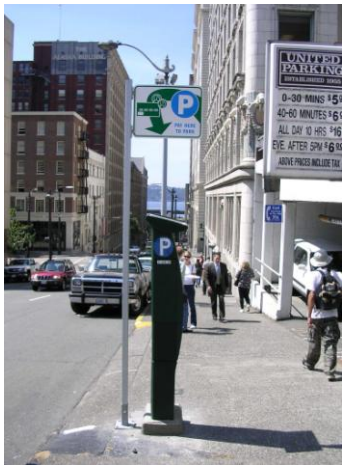
When newly installed, a pay station has an expected useful life of ten (10) years and costs approximately $11,704 to purchase and install. Routine maintenance costs are estimated to be approximately $4,170 over the useful life of the pay station. A pay station also has an operational cost, such as monitoring the pay station network, troubleshooting communications issues, replacing electronic components, and reprogramming, which is estimated to be approximately $18,260 over its useful life.

Future replacement costs for a pay station are difficult to estimate since it is very likely that the current technology will become obsolete and will be replaced with newer, better technology. For purposes of planning, the replacement cost of a pay station installed in 2010 is estimated at $15,215 (2010 inflated dollars) in ten (10) years.

Maintenance Approach:

Malfunctioning components are repaired or replaced as needed. While under warranty, these repair costs are borne by the vendor.

The communication network is expected to operate correctly 98.5% of the time during regular business hours.



Pay Station with Signage

Current Performance Measures:

Performance measures have not been developed for pay stations other than the schedule for replacing parking meters as defined in the program plan.

Funding Requirements:

Maintenance and Operations:

In 2009, the actual costs for maintenance were $985,258 and actual costs for operations were $3,964,348 for all 2,171 devices.

For the years 2010 through 2014, with the inclusion of the anticipated growth of new pay stations installed, funding requirements to meet projected actual costs are displayed in the following table.

Pay Station Funding Requirements
Maintenance & Operation
2010-2014

Year	Number of New Pay Stations	Cost of Maintenance	Cost of Operations	Total Cost of Maintenance & Operations
2010	155	$1,055,601	$4,247,385	$5,302,986
2011	50	$1,078,973	$4,341,427	$5,420,400
2012	50	$1,103,026	$4,438,207	$5,541,233
2013	50	$1,127,760	$4,537,727	$5,665,486
2014	50	$1,153,174	$4,639,985	5,793,195
Total	355	$5,518534	$ 22,204,731	$ 27,723,265

These costs have been adjusted for inflation.

Acquisition of New Pay Stations:

The cost of purchase and installation of new pay stations is not included in the cost of maintenance and operations shown in the table above. In 2010, the cost of purchase and installation is approximately $11,704 per pay station. Projecting this unit cost forward into 2014, the estimated cost of the planned new growth results in a funding requirement as shown in the following table.

Pay Station Funding Requirements
New Pay Station Acquisition and Installation
2011-2014

Year	Number of New Pay Stations	Unit Cost	Acquisition Cost
2010	155	$11,704	$1,814,120
2011	50	$12,055	$602,756
2012	50	$12,406	$620,312
2013	50	$12,757	$637,868
2014	50	$13,108	$655,424
Total	355		$4,330,480

The unit costs have been adjusted for inflation.

By practice, the purchase and installation costs for new pay stations are included in a separate capital budget.

Replacement of Pay Stations:

Replacement of the pay stations is expected to take place starting in 2014.

Unmet Funding Needs:

Parking Operations anticipates two unmet funding needs starting in 2011: 1) for additional credit card costs related to increased credit card usage; and 2) new credit card readers to replace aging readers that are no longer supported by the vendor.

The maintenance budget up to and including 2011 has not included the cost of extended warranty. These costs will need to be added to the budget for maintenance.

Replacement of pay stations starting in 2014 is not funded. Given the unknowns about the cost of newer technology, an estimate of replacement funding for planning purposes is approximately $35 million in 2010 dollars adjusted for inflation over the ten (10) year replacement period.

Replacement Funding Plan for Pay Stations Starting 2014

Year	Number of Replacement Pay Stations	Unit Cost	Acquisition Cost
2014	386	$13,108	$5,059,873
2015	686	$13,460	$9,233,286
2016	264	$13,811	$3,646,030
2017	511	$14,162	$7,236,700
2018	190	$14,513	$2,757,462
2019	108	$14,864	$1,605,321
2020	155	$15,215	$2,358,356
2021	50	$15,566	$778,316
2022	50	$15,917	$795,872
2023	50	$16,269	$813,428
2024	50	$16,620	$830,984
Total	2500		$35,115,628

These numbers have been adjusted for inflation.

Parking Meters:

A parking meter is older technology that consists of a meter head housing containing an electronic parking meter mounted atop a pole. Each meter controls a single parking space adjacent to it. Parking meters accept only coinage. These electronic parking meters replaced the older mechanical meters in 1999/2000.

Current Inventory and Anticipated Annual Growth:

The inventory of parking meters is maintained in the Hansen system.

There are approximately 1,000 parking meters in service. Most of these are located Central Business District and the Waterfront, in scattered downtown locations in commercial loading zones, and in some more outlying districts, such as First Hill.

SDOT intends to replace all parking meters with new pay stations over time.

The replacement value of the parking meter inventory in 2010 dollars is $500,000.

Parking Meters

Condition Ratings, Useful Life and Life Cycle Costs, and Maintenance Approach:

All of the parking meters are considered to be in fair condition. This condition rating is based on the useful life of the electronic component of the device which, at seven (7) years, is considered as being in fair condition. All of the parking meters are at least 7.5 years old.

When newly installed a parking meter is expected to have a useful life of fifteen (15) years. The cost of purchase and installation in 2010 dollars is approximately $500. Routine maintenance for a parking meter costs about $2,600 over the life of the asset. SDOT no longer tracks operational costs for the diminishing meter base.

A parking meter is repaired as needed and is undertaken based on customer request. If the parking meter cannot be repaired, it is either replaced with a pay station, or patrons are directed to the nearest existing pay station.

Current Performance Measures:

Performance measures have not been developed for parking meters and none are planned since these will be replaced by pay stations over time.

Funding Requirements:

Funding requirements for parking meters include the costs of maintenance and operation until all units are replaced. In 2010, actual costs for maintenance are projected to be $149,710. In following years, this budget item will decline slightly as meters are eventually replaced.

By practice, the costs of maintenance and operations for parking meters have been included in the same budget as maintenance and operations for the pay stations.

Unmet Funding Needs:

Parking Operations does not anticipate any unmet funding needs.